

IC 2003-1 to AFMAN 38-208, Volume 2, *AIR FORCE MANAGEMENT ENGINEERING PROGRAM (MEP) - QUANTIFICATION TOOLS*

19 NOVEMBER 2003

SUMMARY OF REVISION

★This change incorporates interim change (IC) 03-1, which operationalizes three new indirect man-hour measurement methods. Paragraphs 13.5 through 13.8.5.2 are all new paragraphs to Chapter 13, *STANDARD INDIRECT ALLOWED MAN-HOURS (SIAM)*.

13.5. Alternate Indirect Man-Hour Measurement Methods:

13.5.1. In addition to the SIAM, several other standard indirect measurement methods are available to provide flexibility in responding to the dynamic expeditionary nature of our aerospace forces. These tools include the Standard Indirect Allowed Man-Hour Equation (SIAME), Direct and Indirect Manpower Equation (DIME) and the Capabilities Based Manpower Determinant (CBMD) Standard Indirect Allowance Factor (SIAF).

13.5.1.1. The Air Force is transforming to a capabilities-focused Expeditionary Air and Space Force. In doing so, our goal is to make warfighting effects, and the capabilities we need to achieve them, the drivers for everything we do. In addressing this Air Force goal, we define manpower requirements in an environment of global engagement with expeditionary forces performing capabilities. We call this manpower quantification the CBMD.

13.5.1.2. The CBMD SIAF is designed to address indirect man-hours or indirect fractional manning when computing a CBMD manpower requirement. The DIME is designed to address indirect man-hours or fractional manning when combining all CBMDs for a determination of manpower requirements at the organizational level or function.

13.5.2. Each tool is discussed in detail in the following paragraphs. Table 13.1, Standard Indirect Measurement Tools Decision Logic Table, describes the advantages and disadvantages of each tool and when they are recommended for use.

| TABLE 13.1 | | | |
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| Standard Indirect Measurement Tools Decision Logic Table | | | |
| Method | Recommended Employment | Advantage | Disadvantage |
| SIAM | To measure indirect man-hours for traditional peacetime manpower standards. | Most Accurate for non-CBMD manpower studies. | Slightly time consuming. Not designed for CBMD studies. |
| SIAME | Same as SIAM. | Quicker than SIAM. | Not designed for CBMD studies. Not as accurate as SIAM. |
| DIME | To quantify total CBMD manpower for a function. Since DIME was | Quick method to determine total | Not intended for application until |

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| | developed as a relationship of indirect requirement to direct requirement (while the SIAM and SIAME based on current assigned personnel), a recommended tool for computing indirect requirements for Most Efficient Organization (MEO). Also recommended for “to be” organizational models especially when significantly different from the “as is” POD. | CBMD FTEs for a function. | completion of all associated CBMD studies. |
| CBMD SIAF | To quantify CBMD indirect man-hours or indirect fractional manpower. Also, a recommended tool for computing indirect requirements once direct requirements have been determined for relatively small mission changes or efficiencies. | Quick method to determine incremental indirect man-hours for a single CBMD. | Not as accurate as total measurement or SIAM. |

13.6. Standard Indirect Allowed Man-Hour Equation (SIAME)

13.6.1. The SIAME is an alternate method of crediting indirect man-hours for Operational Audit and Time Study standards. Direct and SIAME man-hours are added to determine total monthly man-hours for work centers of five or more assigned personnel.

13.6.2. The SIAME was developed using the FAC family approach. Functional areas were analyzed by reviewing the primary mission, types of specialties used, and organizational levels within the function. Associated FACs were then grouped into SIAME families using the following definitions:

13.6.2.1. Management and Administration Work Centers. These work centers have the primary function of managing subordinate organizational elements and providing unit administrative support. Examples include the medical support squadron’s personnel and administration flight, the civil engineer unit administration and the operations squadron’s operations officer and the maintenance officer.

13.6.2.2. Production and Staff Support Work Centers. These work centers have the primary function of supporting the production area of an organization and researching, evaluating, reporting, coordinating, and advising. Examples include the wing manpower and organization office, the comptroller squadron financial analysis flight, the civil engineering or services squadron’s resource management flights and the medical support squadron’s medical information services flight.

13.6.2.3. Customer Service Work Centers. These work centers have the primary function of providing specific services to customers. Examples include the military and civilian personnel flights, base billeting, military pay and travel.

13.6.2.4. Medical Work Centers. These work centers include medical facilities and dental services.

13.6.2.5. Warehouse, Storage, and Issue. These work centers have the primary function of receiving, storing, or issuing material. Examples include the supply squadron material storage and distribution flight and fuels management flight.

13.6.2.6. Industrial Shop. These work centers have the primary function of testing, overhauling, repairing, or manufacturing specific products. Examples include aerospace ground equipment and vehicle maintenance.

13.6.2.7. Table 13.2, Air Force Peacetime SIAME Families reflects the SIAME for each of the FAC family.

| TABLE 13.2 | |
|---|-----------------------------------|
| AIR FORCE PEACETIME SIAME FAMILIES | |
| SIAME FAMILY | SIAME |
| MANAGEMENT & ADMIN | $Y_{(SIAME)} = 148.03 + 9.6973X$ |
| PRODUCTION & STAFF SUPPORT | $Y_{(SIAME)} = 176.90 + 10.4032X$ |
| CUSTOMER SERVICE | $Y_{(SIAME)} = 183.43 + 8.3195X$ |
| MEDICAL | $Y_{(SIAME)} = 170.84 + 9.1903X$ |
| WAREHOUSE, STORAGE & ISSUE | $Y_{(SIAME)} = 221.31 + 8.8398X$ |
| INDUSTRIAL SHOP | $Y_{(SIAME)} = 270.13 + 9.3033X$ |
| NOTES: | |
| 1. $Y_{(SIAME)}$ results in total indirect man-hours. | |
| 2. X = Average Number of Assigned Work Center Personnel | |
| 3. Recommended for work centers of five or more assigned personnel. | |

13.6.2.8. Table 13.3 complements Tables 13.2, 13.4 and 13.5. It reflects the SIAME, DIME and SIAF Family for each specific FAC. Tables 13.2, 13.4 and 13.5 are summaries of SIAME, DIME and SIAF models by general FAC family. The study team identifies the family on table 13.3 and uses the indicated equation or factor specified on Tables 13.2, 13.3 or 13.5. For example, Table 13.3 reflects Production and Staff Support for the Manpower function. Table 13.2 states the SIAME model to use is $Y_{(SIAME)} = 176.90 + 10.4032X$, Table 13.4 states the DIME model to use is $Y_{(DIME)} = 1.88 + 1.0785X$, and Table 13.5 states the SIAF factor to use is 1.0785.

| Table 13.3 | | |
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| SIAME, DIME & SIAF Listing by FAC | | |
| FAC | TITLE | SIAME, DIME, SIAF Family |
| 1011 | Protocol | Management & Administration |

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| 1012 | Gp Sq Command Unit | Management & Administration |
| 1015 | History/Staff | Production & Staff Support |
| 101A | History | Production & Staff Support |
| 101D | Dormitory Management | Management & Administration |
| 1022 | Area Defense Counsel | Customer Service |
| 1025 | Contract Law Counsel | Production & Staff Support |
| 102A | Judge Advocate | Production & Staff Support |
| 104A | Public Affairs | Production & Staff Support |
| 1050 | Chaplain Staff | Management & Administration |
| 105A | Chaplain | Management & Administration |
| 106A | Safety | Production & Staff Support |
| 1080 | Manpower & Innovation | Production & Staff Support |
| 1080A | Wing/Center Manpower | Production & Staff Support |
| 10A0 | Wing Commander | Management & Administration |
| 10B0 | Logistics Group | Management & Administration |
| 10C0 | Support Group | Management & Administration |
| 10D0 | Operations Group | Management & Administration |
| 1100 | Information Mgmt Staff | Management & Administration |
| 1101 | Administrative Systems Mgmt | Production & Staff Support |
| 1107 | Plans & Programs - Staff | Management & Administration |
| 1122 | Micrographics Mgmt | Warehouse, Storage & Issue |
| 1123 | Engineering Data Service Center | Customer Service |
| 1136 | Postal Finance Office | Production & Staff Support |

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| 1150 | Printing Mgmt | Management & Administration |
| 1151 | Printing | Industrial Shop |
| 1153 | Microform Production | Customer Service |
| 1160 | Publishing | Management & Administration |
| 1170 | Information Mgmt Center | Management & Administration |
| 1171 | Word Processing Center | Management & Administration |
| 1172 | Information Mgmt Support Cntr | Management & Administration |
| 1200 | Logistics Staff | Management & Administration |
| 1205 | Logistics Quality Assurance Staff | Management & Administration |
| 1210 | Logistics Plans Staff | Management & Administration |
| 1220 | Supply Staff | Management & Administration |
| 1230 | Maintenance Staff | Management & Administration |
| 1231 | Aircraft Maintenance Staff | Management & Administration |
| 1232 | Munitions Maintenance Staff | Management & Administration |
| 1233 | Missile Maintenance Staff | Management & Administration |
| 1234 | Ground Com Elec Maint Staff | Production & Staff Support |
| 1235 | Maintenance Stand & Eval Teams | Management & Administration |
| 1240 | Transportation Staff | Management & Administration |
| 1250 | Contracting & Acquisition | Production & Staff Support |
| 12A0 | Operational Contracting | Production & Staff Support |
| 12A1 | Acquisition Flight | Production & Staff Support |
| 12B1 | Performance Management Flt | Production & Staff Support |
| 12C1 | Plans & Programs | Production & Staff Support |

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| 12D1 | Contingency Support | Industrial Shop |
| 12E1 | Specialized Contracting | Production & Staff Support |
| 1300 | Operations Staff | Management & Administration |
| 1301 | TAC Unit Operations Center | Production & Staff Support |
| 1310 | Operational Plans | Production & Staff Support |
| 131A | Wing Plans | Management & Administration |
| 1320 | Operational Requirements | Production & Staff Support |
| 1340 | Standardization & Evaluation | Production & Staff Support |
| 135A | Command Post | Production & Staff Support |
| 13A0 | Operations Support Squadron | Management & Administration |
| 13A1 | Standardization & Evaluation | Production & Staff Support |
| 13B1 | Weapon/Tactics Flight | Production & Staff Support |
| 13C1 | Current Operations Flight | Management & Administration |
| 13E1 | Airfield Operations Flight | Management & Administration |
| 1400 | Plans & Programming | Production & Staff Support |
| 1410 | Policy | Production & Staff Support |
| 1430 | Programming Staff | Management & Administration |
| 151A | Financial Management | Production & Staff Support |
| 1517 | Cost | Management & Administration |
| 1530 | Budget Staff | Management & Administration |
| 1540 | Data Automation/Operational | Production & Staff Support |
| 1541 | Systems Analysis | Production & Staff Support |
| 1542 | ADP Equipment Mgmt | Production & Staff Support |

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| 1543 | Data Proc Equip Operations | Production & Staff Support |
| 1544 | Computer Programming | Management & Administration |
| 1546 | Data Automation Staff | Production & Staff Support |
| 1550 | Audit Staff | Production & Staff Support |
| 1551 | Audit Operations | Customer Service |
| 16B1 | Military Personnel Flight | Customer Service |
| 16C1 | Civilian Personnel Flight | Customer Service |
| 16D1 | Social Actions Flight | Management & Administration |
| 16E1 | Education Services Flight | Customer Service |
| 16F1 | Family Support Center | Customer Service |
| 16G1 | Info Management Flight | Management & Administration |
| 16W1 | Equal Empl Optn Cnslr | Production & Staff Support |
| 21A0 | Logistics Support Squadron | Management & Administration |
| 21A1 | Quality Assurance | Production & Staff Support |
| 21B1 | Quality Assurance | Industrial Shop |
| 21C1 | Maintenance Training Flt | Management & Administration |
| 21D1 | Logistics Plans Flt | Management & Administration |
| 21E1 | Current Ops - Maintenance | Industrial Shop |
| 22A0 | Aircraft Generation Squadron | Industrial Shop |
| 22A1 | Maintenance Officer | Management & Administration |
| 22B1 | Sortie Generation Flight | Industrial Shop |
| 22C1 | Sortie Support Flight | Industrial Shop |
| 23A0 | Maintenance Squadron | Management & Administration |

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| 23A1 | Maintenance Supervisor | Management & Administration |
| 23B1 | Fabrication Flight | Industrial Shop |
| 23C1 | Propulsion Flight | Industrial Shop |
| 23D1 | Accessories Flight | Industrial Shop |
| 23E1 | Avionics Flight | Industrial Shop |
| 23F1 | Aerospace Ground Equip Flt | Industrial Shop |
| 23G1 | Armament Systems Flight | Industrial Shop |
| 23H1 | Munitions Flight | Industrial Shop |
| 23I1 | Test Meas & Diagnostic Equip Flt | Industrial Shop |
| 23J1 | Maintenance Flight | Industrial Shop |
| 23K1 | Combat Munitions Flight | Industrial Shop |
| 24L1 | Munitions Depot Flight | Industrial Shop |
| 2400 | Avionics Maintenance | Management & Administration |
| 2401 | Avionics Maintenance Unit Admin | Management & Administration |
| 2402 | Avionics Maintenance Training | Production & Staff Support |
| 2403 | Avionics Maintenance Mobility | Customer Service |
| 2404 | Avionics Maintenance Supervision | Management & Administration |
| 2405 | Avionics Analysis | Production & Staff Support |
| 2500 | Munitions Maintenance Mgmt | Management & Administration |
| 2501 | Munitions Maint Unit Admin | Management & Administration |
| 2502 | Munitions Maintenance Training | Production & Staff Support |
| 2503 | Munitions Maintenance Mobility | Customer Service |
| 2504 | Munitions Maint Supervision | Management & Administration |

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| 2505 | Munitions Supply | Customer Service |
| 2507 | Munitions Control | Production & Staff Support |
| 2508 | Munitions Analysis | Production & Staff Support |
| 2510 | Munitions Services | Management & Administration |
| 2511 | Weapons Loading | Industrial Shop |
| 2520 | Munitions Maintenance/Storage | Management & Administration |
| 2521 | Nuclear Maintenance | Industrial Shop |
| 2522 | Storage/Handling | Warehouse, Storage & Issue |
| 25A1 | Weapons Standards | Production & Staff Support |
| 2800 | Ground Launch Missile Maint | Industrial Shop |
| 2910 | Ground Support Equip Maint Mgt | Management & Administration |
| 2A01 | Unit Admin | Management & Administration |
| 2A02 | Training Admin | Management & Administration |
| 2A03 | Maintenance Supervision | Management & Administration |
| 2A20 | Conventional Avionics | Industrial Shop |
| 2A30 | Offensive/Defensive Avionics | Industrial Shop |
| 2A42 | B-2 Avionics Test Station | Industrial Shop |
| 2E01 | Equip Maintenance Unit Admin | Management & Administration |
| 2E02 | Equip Maintenance Training | Management & Administration |
| 2E04 | Equip Maintenance Supervision | Management & Administration |
| 2E13 | AGE Pickup/Delivery | Warehouse, Storage & Issue |
| 2E20 | Maintenance | Management & Administration |
| 2E30 | Munitions | Management & Administration |

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| 2E31 | Munitions Control | Industrial Shop |
| 2E37 | Munitions Supply (FK Account) | Warehouse, Storage & Issue |
| 2E38 | Explosive Ordnance Disposal | Industrial Shop |
| 2E39 | Munitions Inspection | Industrial Shop |
| 2E3B | Line Delivery | Warehouse, Storage & Issue |
| 2E3C | Material - Production | Management & Administration |
| 2G00 | Aircraft Generation | Management & Administration |
| 2G01 | Aircraft Generation Unit Admin | Management & Administration |
| 2G02 | Aircraft Generation Training | Management & Administration |
| 2G03 | Aircraft Generation Mobility | Management & Administration |
| 2G04 | Aircraft Gen Maint Supervision | Management & Administration |
| 2G10 | Aircraft Maintenance | Management & Administration |
| 2G30 | Support | Warehouse, Storage & Issue |
| 2G40 | Alert | Industrial Shop |
| 2R00 | Component Repair | Management & Administration |
| 2R01 | Component Repair Unit Admin | Management & Administration |
| 2R02 | Component Repair Training | Management & Administration |
| 2R03 | Component Repair Mobility | Management & Administration |
| 2R10 | Conventional Avionics | Management & Administration |
| 2R20 | Propulsion | Management & Administration |
| 2R30 | Accessory Maintenance | Management & Administration |
| 2R90 | Aircrew Training Devices | Industrial Shop |
| 3100 | Operations | Management & Administration |

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| 3101 | Operations Unit Admin | Management & Administration |
| 3102 | Unit Aircrew Life Support | Industrial Shop |
| 3112 | Air Liaison Officer | Management & Administration |
| 31A0 | Operations Sq | Management & Administration |
| 31B1 | Flight Crews | Industrial Shop |
| 31D1 | Operations Data Management | Management & Administration |
| 3201 | Visual Info Activity Admin | Management & Administration |
| 3270 | Base Level Visual Info Support | Management & Administration |
| 3271 | Base Level Visual Info Library | Customer Service |
| 3272 | Base Level Photographic Lab | Customer Service |
| 3274 | Base Level Graphic Arts | Customer Service |
| 3275 | Visual Info Training Aids | Customer Service |
| 3280 | Armament Delivery Recording | Industrial Shop |
| 34A1 | Weather Flight | Production & Staff Support |
| 3500 | Intelligence Management | Management & Administration |
| 3501 | Unit Administration | Management & Administration |
| 3510 | Intelligence Operations | Production & Staff Support |
| 3511 | Technical Intelligence | Management & Administration |
| 3512 | Transmission Activities | Production & Staff Support |
| 3513 | Emission Activities | Production & Staff Support |
| 3514 | Crypto Activities | Production & Staff Support |
| 3515 | Communications Activities | Production & Staff Support |
| 3516 | Electronics Activities | Production & Staff Support |

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|------|------------------------------------|-----------------------------|
| 3517 | Radiation Activities | Production & Staff Support |
| 3518 | Electronic Warfare Activities | Production & Staff Support |
| 3519 | Radar Activities | Production & Staff Support |
| 3520 | Intelligence Collection Mgmt | Management & Administration |
| 3521 | COMINT Collection | Production & Staff Support |
| 3522 | Electronic Intelligence Collection | Production & Staff Support |
| 3523 | Imagery Intelligence Collection | Production & Staff Support |
| 3524 | FISINT Collection | Production & Staff Support |
| 3525 | Human Intelligence Collection | Production & Staff Support |
| 3530 | Intell Proc & Prod Mgmt | Management & Administration |
| 3531 | COMINT Processing & Production | Production & Staff Support |
| 3532 | ELINT Processing & Production | Production & Staff Support |
| 3533 | Imagery Intelligence Production | Production & Staff Support |
| 3534 | Frgn Instrumntion SIG INTEL Pro | Production & Staff Support |
| 3535 | HUMINT Processing & Production | Production & Staff Support |
| 3536 | Intell Library & Doc Repository | Production & Staff Support |
| 3537 | IDHS Development | Production & Staff Support |
| 3540 | All Source Intell Data Analysis | Production & Staff Support |
| 3541 | Intelligence Estimates | Production & Staff Support |
| 3542 | Target Intelligence Analysis | Production & Staff Support |
| 3543 | Scientific & Technological Analy | Production & Staff Support |
| 3560 | Special Intelligence Operations | Production & Staff Support |
| 3561 | Communications Security | Production & Staff Support |

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|------|-----------------------------------|-----------------------------|
| 3562 | Comm Unit Administration | Management & Administration |
| 3563 | Precision Photographic Lab | Production & Staff Support |
| 3564 | Intelligence Graphics Services | Industrial Shop |
| 35A1 | Intelligence Flight | Production & Staff Support |
| 3800 | Ground Comm - Elect Activities | Management & Administration |
| 3801 | Ground Comm - Electronics Admin | Management & Administration |
| 3802 | Comm & Elect Programs Mgmt | Production & Staff Support |
| 3803 | Technical Control | Production & Staff Support |
| 3812 | Approach Control Tower | Production & Staff Support |
| 3813 | Ground Control Approach | Production & Staff Support |
| 3820 | Comm - Electronic Operations | Management & Administration |
| 3821 | Comm-Electronic Operation | Management & Administration |
| 3854 | Teletype/Crypto Terminal Center | Production & Staff Support |
| 3861 | Sec Digtl Op Autom Digtl Rly Ctr | Production & Staff Support |
| 3863 | Sec Digtl Op Termls - Terml Cntrs | Production & Staff Support |
| 3872 | Telephone Operations - TAC PBX | Customer Service |
| 38A0 | Communications Squadron | Management & Administration |
| 38A1 | Systems Flight | Industrial Shop |
| 38AA | METNAVE Maintenance | Industrial Shop |
| 38AB | ATCALS Maintenance | Industrial Shop |
| 38AC | Ground Radio Maintenance | Industrial Shop |
| 38AG | Secure Comm Maintenance | Industrial Shop |
| 38AH | Telephone Operations | Industrial Shop |

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|------|--------------------------------|-----------------------------|
| 38AI | Telephone Outside Maintenance | Industrial Shop |
| 38AJ | Telephone Inside Maintenance | Industrial Shop |
| 38AK | Non-Hard Cable Maintenance | Industrial Shop |
| 38AL | Land Mobile Radio | Industrial Shop |
| 38AM | Systems Support | Industrial Shop |
| 38AS | BISS Maintenance | Industrial Shop |
| 38B1 | Support Flt | Management & Administration |
| 38BA | Visual Information | Industrial Shop |
| 38BG | Publishing | Management & Administration |
| 38BH | Reprographics | Production & Staff Support |
| 38C1 | Plan/Implement Flt | Management & Administration |
| 38D1 | Information Systems Flight | Management & Administration |
| 38DA | Base Network Cntrl Cntr (BNCC) | Production & Staff Support |
| 38DB | Information Protection | Production & Staff Support |
| 38DC | Administrative Communications | Management & Administration |
| 38DD | Records Management | Management & Administration |
| 38DE | Customer Training | Customer Service |
| 38DF | Maintenance Control | Management & Administration |
| 38DI | Data Processing Systems | Production & Staff Support |
| 38DJ | Small Computer Sys Element | Production & Staff Support |
| 38DK | Telecomm Center | Production & Staff Support |
| 41A0 | Supply Squadron | Management & Administration |
| 41A1 | Regional Supply Sq | Production & Staff Support |

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|------|------------------------------------|-----------------------------|
| 41B1 | MAT STOR/DST FLT (Historical) | Warehouse, Storage & Issue |
| 41C1 | MAT MGT FLT (Historical) | Warehouse, Storage & Issue |
| 41D1 | Fuels Management Flt | Warehouse, Storage & Issue |
| 41E1 | Combat Operations Flt (Historical) | Warehouse, Storage & Issue |
| 41F1 | Forward Supply Locations | Warehouse, Storage & Issue |
| 42A0 | Transportation Squadron | Management & Administration |
| 42A1 | Vehicle Operations Flight | Management & Administration |
| 42A2 | Vehicle Operations | Industrial Shop |
| 42B0 | Aerial Port Squadron | Management & Administration |
| 42B1 | Vehicle Maint Flt | Industrial Shop |
| 42C1 | Traffic Mgt Flt | Management & Administration |
| 42D1 | Combat Readiness Flight | Production & Staff Support |
| 42D2 | Combat Readiness Resources | Production & Staff Support |
| 42E1 | Air Passenger Flight | Customer Service |
| 42F1 | Fleet Services Flight | Industrial Shop |
| 42G1 | Combat Readiness/Resources Flt | Production & Staff Support |
| 42H1 | Air Term Ops Ctr | Production & Staff Support |
| 42I1 | Air Delivery Flight | Industrial Shop |
| 42J1 | Air Freight Flight | Industrial Shop |
| 43A0 | Security Police Squadron | Management & Administration |
| 43A1 | Stan/Eval | Production & Staff Support |
| 43B1 | Admin/Reports Flt | Management & Administration |
| 43C1 | Operations Flt | Industrial Shop |

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| 43D1 | Training/Resources Flight | Production & Staff Support |
| 43E1 | Acquisition Security | Production & Staff Support |
| 44CE | Base Civil Engineer | Management & Administration |
| 44EB | READINESS | Industrial Shop |
| 44EC | Engineering | Production & Staff Support |
| 44ED | Explosive Ordnance Disposal | Industrial Shop |
| 44EF | Fire Protection | Industrial Shop |
| 44EH | Housing | Industrial Shop |
| 44EI | Sci Facil CE Supt | Management & Administration |
| 44EN | Nonstd Unit CE Support | Industrial Shop |
| 44EO | Operations | Industrial Shop |
| 44EP | Acquisition & Liaison CE | Production & Staff Support |
| 44EQ | Contracted CE Support | Industrial Shop |
| 44ER | Resources | Production & Staff Support |
| 44ES | Site/Radar CE Support | Industrial Shop |
| 44ET | Site/Range CE Support | Industrial Shop |
| 44EV | Environmental | Industrial Shop |
| 45A0 | MWRS Overhead | Management & Administration |
| 45AA | Staff | Management & Administration |
| 45B0 | Resource Management | Production & Staff Support |
| 45C0 | Force Management | Production & Staff Support |
| 45D0 | Military Support | Management & Administration |
| 45D1 | Food Service | Customer Service |

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| 45D2 | Contract Food | Management & Administration |
| 45D5 | Billeting | Customer Service |
| 45D8 | Physical Fitness | Customer Service |
| 45D9 | Recreation Center | Customer Service |
| 45F0 | Youth Programs | Customer Service |
| 45F2 | Child Development | Customer Service |
| 45G1 | General Libraries | Customer Service |
| 45G4 | Arts & Crafts | Customer Service |
| 5100 | Medical Command | Management & Administration |
| 5112 | Linen Supply | Management & Administration |
| 5130 | Medical Personnel | Management & Administration |
| 5140 | Patient Administration | Management & Administration |
| 5141 | Inpatient Admin Services | Management & Administration |
| 5142 | Ambulatory Care Admin Svcs | Management & Administration |
| 5143 | Patient Admin (Clinics) | Customer Service |
| 5144 | Central Appointments | Production & Staff Support |
| 5150 | Facilities Management | Management & Administration |
| 5200 | Clinical Medicine | Medical |
| 5205 | Nursing Services | Medical |
| 5206 | Medical Surgical Nursing Units | Medical |
| 5207 | Obstetrical Nursing Units | Medical |
| 5210 | Medical Services | Medical |
| 5211 | Internal Medicine | Medical |

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| 5212 | Respiratory Care | Medical |
| 5214 | Neurology | Medical |
| 5215 | Dermatology | Medical |
| 5216 | Mental Health Services | Medical |
| 5217 | Occupational Therapy | Medical |
| 5220 | Emergency Services | Medical |
| 5221 | Primary Care Clinic | Medical |
| 5222 | Emergency Room | Medical |
| 5223 | Family Practice | Medical |
| 5224 | Primary Care Teams | Medical |
| 5230 | Surgery Services | Medical |
| 5231 | Neurological Surgery | Medical |
| 5232 | Thoracic Surgery | Medical |
| 5233 | Urology | Medical |
| 5234 | General Surgery | Medical |
| 5235 | Ophthalmology | Medical |
| 5236 | Otorhinoloryngology | Medical |
| 5237 | Plastic Surgery | Medical |
| 5239 | Orthopedics | Medical |
| 5240 | Surgical Suite | Medical |
| 5242 | Anesthesia | Medical |
| 5250 | Maternal/Child Care | Medical |
| 5251 | Pediatrics | Medical |

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| 5252 | Medically Related Services | Medical |
| 5254 | Obstetrics and GYN | Medical |
| 5260 | Special Care/ICU | Medical |
| 5261 | Emergency Svc (Med Cen Only) | Medical |
| 5262 | Ambulance Svc (Med Cen Only) | Medical |
| 5270 | Physical Exams | Medical |
| 5310 | Flight/Missile Medicine | Medical |
| 5311 | Bioenvironmental Engineering | Medical |
| 5313 | Public Health | Medical |
| 5318 | Physical Medicine | Medical |
| 5410 | Environmental Health | Medical |
| 5421 | Dental Residency | Medical |
| 5422 | Dental Lab | Medical |
| 5423 | Area Dental Lab | Medical |
| 542X | Dental Services | Medical |
| 5440 | Occ & Envmt Hlth Lab | Medical |
| 5511 | Histopathology | Medical |
| 5512 | Clinical Lab | Medical |
| 5513 | Pharmacy | Medical |
| 5514 | Radiology | Medical |
| 5515 | Nuclear Medicine | Medical |
| 5530 | Medical Logistics | Management & Administration |
| 5540 | Personnel & Administration | Management & Administration |

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|------|---------------------------------|-----------------------------|
| 5560 | TRICARE | Management & Administration |
| 5561 | Business Ops & Bene Support | Management & Administration |
| 5570 | Medical Info Systems | Management & Administration |
| 5610 | Aeromed Evacuation Mgmt | Medical |
| 5620 | Aeromedical Evacuation Materiel | Medical |
| 5630 | Aeromed Evacuation Operations | Medical |
| 5640 | Inflight Medical Care | Medical |
| 5660 | Aeromed Staging Flt (Mobile) | Medical |

13.6.3. Terms and Symbols:

13.6.3.1. $Y_{(Dir)}$ = Direct man-hours from application of direct man-hour equation.

13.6.3.2. $Y_{(SIAME)}$ = Indirect man-hours from application of the applicable SIAME.

13.6.3.3. $Y_{(Tot)}$ = Total direct and indirect man-hours. $Y_{(Tot)} = Y_{(Dir)} + Y_{(SIAME)}$

13.6.3.4. Application. The standards development team develops a direct manpower equation, $Y_{(Dir)}$, using measured direct time and an indirect equation, $Y_{(SIAME)}$, using the selected SIAME and the average number of assigned work center personnel as the workload factor. The direct equation results are added to the SIAME results to derive the total monthly man-hours.

13.6.3.4.1. Application Example: Using a notional $Y_{(Dir)} = 300 + 5.6555X$ equation,
 $Y_{(Dir)} = 300 + 5.6555X$ (Where $X_{(Dir)}$ = Workload Factor = 250 Vehicles Assigned).
 $Y_{(Dir)} = 300 + 5.6555(250) = 1713.88$.
 $Y_{(SIAME)} = 270.13 + 9.3033X$ ($X_{(SIAME)} = 12$ Average Assigned Personnel).
 $Y_{(SIAME)} = 270.13 + 9.3033(12) = 381.77$ Indirect Man-Hours
 $Y_{(Tot)} = Y_{(Dir)} + Y_{(SIAME)} = Y_{(Tot)}$
 $Y_{(Tot)} = 1713.88 + 381.77 = 2095.65$ Total Man-Hours

13.6.4. Using SIAME:

13.6.4.1. The study team must use caution when selecting the SIAME. Review the FAC family definitions in paragraphs 13.6.2.1 through 13.6.2.6 and select the SIAME that best fits the work

center or function being studied. Ensure the standard indirect description reflected in AFMS00AA applies. If ANY of the indirect task definition elements are not done, or additional elements are done, a variance must be developed to supplement the SIAME. In this case, you must measure this task using the SIAM task measurement instructions reflected on the SIAM task data sheet. These measured man-hours are then added or subtracted, as appropriate, from the results of the SIAME application.

13.6.4.2. Use logic. If the SIAME allowed time is not representative of what normally occurs in the work center the study team should measure the task using the SIAM task data sheet measurement instructions.

13.7. Direct & Indirect Manpower Equation (DIME)

13.7.1. The DIME is an alternate method of crediting indirect manpower for functions of five or more assigned personnel that has quantified total direct manpower requirements.

13.7.2. Table 13.4, Air Force DIME Families, reflects the DIME model for each FAC family.

| TABLE 13.4 | |
|---|-------------------------------|
| AIR FORCE DIME FAMILIES | |
| AIR FORCE DIME FAMILY | DIME |
| MANAGEMENT & ADMIN | $Y_{(DIME)} = 0.99 + 1.0753X$ |
| PRODUCTION & STAFF SUPPORT | $Y_{(DIME)} = 1.88 + 1.0785X$ |
| CUSTOMER SERVICE | $Y_{(DIME)} = 1.23 + 1.0610X$ |
| MEDICAL | $Y_{(DIME)} = 1.14 + 1.0699X$ |
| WAREHOUSE, STORAGE & ISSUE | $Y_{(DIME)} = 1.48 + 1.0650X$ |
| INDUSTRIAL SHOP | $Y_{(DIME)} = 1.81 + 1.0681X$ |
| NOTES: | |
| 1. $Y_{(DIME)}$ results in total (direct & indirect) manpower. | |
| 2. X = Direct Manpower | |
| 3. Recommended for work centers of five or more assigned personnel. | |

13.7.1.6. Table 13.3, SIAME, DIME, & SIAF Listing by FAC, reflects the DIME for each individual FAC.

13.7.2. Terms and Symbols

13.7.2.1. $Y_{(Dir)}$ = Direct manpower from application of a manpower equation and subsequent conversion to a manpower requirement by applying the applicable MAF.

13.7.2.2. $Y_{(DIME)}$ = Total manpower requirement by applying the direct manpower ($Y_{(Dir)}$) in the applicable DIME.

13.7.2.3. Application. Prior to using the DIME model it is necessary to quantify the total functional direct manpower ($Y_{(Dir)}$). This is accomplished by determining the total direct required monthly man-hours for the function and dividing by the appropriate MAF. The study

team selects the appropriate DIME ($Y_{(DIME)}$) model (See Table 13.3) and applies direct manpower as the independent variable. The DIME produces the total direct and indirect manpower.

13.7.2.4. Application Example: Using a notional $Y_{(Dir)} = 300 + 5.6555X$ equation,
 $Y_{(Dir)} = 300 + 5.6555X$ (Where $X_{(Dir)} = \text{Workload Factor} = 250 \text{ Vehicles Assigned}$).
 $Y_{(Dir)} = 300 + 5.6555(250) = 1713.88 \text{ Direct Man-Hours}$.
 $1713.88/149.6 = 11.46 \text{ Direct Manpower}$
 $Y_{(DIME)} = 1.81 + 1.0681X$ (Where $X = \text{Direct Manpower}$).
 $Y_{(DIME)} = 1.81 + 1.0681(11.46) = 14.05 \text{ Total Functional Manpower Requirement}$.

13.7.3. Using DIME:

13.6.3.1. The study team must use caution when selecting the DIME. Review the FAC family definitions in paragraphs 13.6.2.1 through 13.6.2.6 and select the DIME that best fits the work center or function being studied. Ensure the standard indirect description reflected in AFMS 00AA applies. If ANY of the indirect task definition elements are not done, or additional elements are done, a variance must be developed to supplement the DIME. In this case, you must measure this task using the SIAM Task Measurement Instructions reflected on the SIAM Task Data Sheet. These measured man-hours are then added or subtracted, as appropriate, from the results of the DIME application.

13.7.3.2. Use logic. If the DIME allowed manpower is not representative of what normally occurs in the function the study team should consider an alternate model.

13.8. Capability Based Manpower Determinant (CBMD) Standard Indirect Allowance Factor (SIAF).

13.8.1. The CBMD SIAF is a simple tool that quantifies the incremental indirect man-hours required for each CBMD resource (i.e., Security Forces, Personnel, Medical, etc.).

13.8.2. Table 13.5, Air Force CBMD SIAF Families, reflects the SIAF for each FAC family.

| TABLE 13.5 | |
|--|--------|
| AIR FORCE CBMD SIAF FAMILIES | |
| CBMD SIAF FAMILY | SIAF |
| MANAGEMENT & ADMIN | 1.0753 |
| PRODUCTION & STAFF SUPPORT | 1.0785 |
| CUSTOMER SERVICE | 1.0610 |
| MEDICAL | 1.0699 |
| WAREHOUSE, STORAGE & ISSUE | 1.0650 |
| INDUSTRIAL SHOP | 1.0681 |
| NOTES: | |
| 1. Multiply the SIAF by the CBMD Direct Man-hours and divide by the applicable MAF to compute the CBMD FTEs. | |
| OR | |

2. Multiply the CBMD Direct FTE by the SIAF to compute the total CBMD FTE.
- OR
3. Multiply the SIAF by the regression coefficients of the CBMD $Y_{(CBMD\ DIR)}$ equation (if available). For example: $Y_{(CBMD\ DIR)} = a + bX$, $Y_{(CBMD\ Total)} = a(SIAF) + b(SIAF)X$. X = CBMD specific workload factor.

13.8.3. Table 13.3, SIAME, DIME, & SIAF Listing by FAC, reflects the SIAF for each individual FAC.

13.8.4. Terms and Symbols

13.8.4.1. CBMD Direct Man-hours = Direct man-hours for each CBMD.

13.8.4.2. SIAF = Standard Indirect Allowance Factor.

13.8.4.3. Application. Application of the SIAF results in the total monthly man-hour requirement which may be converted to a full time equivalent (FTE) by dividing the man-hours by the applicable man-hour availability factor (MAF). The study team selects the appropriate SIAF and applies it to the respective direct man-hours.

13.8.4.4. Application Example: The study team selects the appropriate CBMD SIAF (i.e. Security Forces = SIAF 1.0785, Military Personnel Flight = 1.0610, Emergency Room = SIAF 1.0699) and multiplies it times the CBMD Direct Man-hours, if available. This value is divided by the appropriate MAF to determine the FTE. Sum all FTEs to determine the CBMD total FTE requirement. If the CBMD Direct FTE has been defined, the study team multiplies this value by the respective SIAF to determine the total CBMD FTE. If a CBMD Direct man-hour equation has been developed, apply the SIAF as reflected in Table 13.6, CBMD SIAF Application.

| Table 13. 6. | | | | | |
|---|---------------------------------|-------------|--------------------------------|------------|------------------|
| CBMD SIAF Application Example. | | | | | |
| A. Multiply the SIAF by the CBMD Direct Man-hours and divide by the applicable MAF to compute the CBMD FTEs. | | | | | |
| CBMD Resources | Direct Monthly Man-hours | SIAF | Total Monthly Man-hours | MAF | CBMD FTEs |
| Security Forces | 1496.00 | 1.0785 | 1613.44 | 149.6 | 10.79 |
| Civil Engineer | 598.40 | 1.0681 | 639.15 | 149.6 | 4.27 |
| Vehicle Maint | 600.50 | 1.0681 | 641.39 | 149.6 | 4.29 |
| Admin | 149.60 | 1.0753 | 160.86 | 149.6 | 1.08 |
| Storage/Issue | 500.60 | 1.0650 | 533.14 | 149.6 | 3.56 |
| Total CBMD Requirement | | | | | 23.99 |
| B. Multiply the CBMD Direct FTE by the SIAF to compute the total CBMD FTE. | | | | | |

| CBMD Resources | Direct CBMD FTEs | SIAF | | | Total CBMD FTEs |
|--|-------------------------|-------------|--|--|------------------------|
| Security Forces | 10 | 1.0785 | | | 10.79 |
| Civil Engineer | 4 | 1.0681 | | | 4.27 |
| Vehicle Maint | 4 | 1.0681 | | | 4.27 |
| Admin | 1 | 1.0753 | | | 1.08 |
| Storage/Issue | 3.35 | 1.0650 | | | 3.57 |
| Total CBMD Requirement | | | | | 23.98 |
| C. Multiply the SIAF by the regression coefficients of the CBMD $Y_{(CBMD\ DIR)}$ equation (if available). For example: $Y_{(CBMD\ DIR)} = a + bX$, $Y_{(Total)} = a(SIAF) + b(SIAF)$. | | | | | |
| $Y_{(CBMD\ DIR)} = 309.12 + 5.6555X$, $Y_{(Total)} = 309.12 (1.0785) + 5.6555(1.0785)X$, $Y_{(Total)} = 333.39 + 6.099X$, Where $X = 210$ widgets, $Y_{(Total)} = 333.39 + 6.099(210)$, $Y_{(Total)} = 1614.18$, CBMD FTE = $1614.18/\text{Applicable MAF} = 1614.18/149.6 = 10.79$ FTE | | | | | |

13.8.5. Using the CBMD SIAF:

13.8.5.1. The study team must use caution when selecting the CBMD SIAF. Review the FAC family definitions in paragraphs 13.6.2.1 through 13.6.2.6 and select the SIAF that best fits the work center or function being studied. Ensure the standard indirect description reflected in AFMS 00AA applies. If ANY of the indirect task definition elements are not done, or additional elements are done, the SIAF CANNOT be used. You must measure the indirect workload using the SIAM task measurement instructions reflected on the SIAM task data sheet.

13.8.5.2. Use logic. If the SIAF allowed time is not representative of what normally occurs in the CBMD defined environment the study team should measure the task using the SIAM task data sheet measurement instructions.